

10 a slot line provided at an end portion of said first planar dielectric line on said dielectric plate;
line-conversion conductor patterns which are connected to said first planar dielectric line and
which are used to perform mode conversion between said first planar dielectric line and said slot
line; and
electronic components disposed in such a manner as to be extended over said slot line.

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concl'd*
[NEW] 6. The circuit of claim 5, further comprising:

a second planar dielectric line comprising: a third slot which is provided by disposing two
conductors at a fixed distance apart on said first main surface of said dielectric plate, and a fourth
slot, which opposes the third slot and is provided by disposing two conductors at a fixed distance
apart on said second main surface of said dielectric plate, with a region sandwiched between said
third slot and said fourth slot being provided as a plane-wave propagation region;

said second planar dielectric line being electromagnetically coupled to said dielectric
resonator.

[NEW] 7. The circuit of claim 6, wherein said dielectric resonator is coupled to an end of said
second planar dielectric line.

[NEW] 8. A planar dielectric integrated circuit, comprising:

5 a first planar dielectric line comprising: a first slot which is provided by disposing two
conductors at a fixed distance apart on a first main surface of a dielectric plate, and a second slot,
which opposes the first slot and is provided by disposing two conductors at a fixed distance apart
on a second main surface of said dielectric plate, with a region sandwiched between said first slot
and said second slot being provided as a plane-wave propagation region;

10 a slot line provided at an end portion of said first planar dielectric line on said dielectric plate;
line-conversion conductor patterns which are connected to said first planar dielectric line and
which are used to perform mode conversion between said first planar dielectric line and said slot
line; and

electronic components disposed in such a manner as to be extended over said slot line.